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SENATE

REPORT
No. 98-188

NATIONAL AQUACULTURE AUTHORIZATION ACT OF 1983

JULY 20 (legislative day, JULY 18), 1983.—Ordered to be printed

Mr. HELMS, from the Committee on Agriculture, Nutrition, and Forestry, submitted the following

REPORT

[To accompany S. 1101]

The Committee on Agriculture, Nutrition, and Forestry, to which was referred the bill (S. 1101) to authorize appropriations for certain fishery programs, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

SHORT EXPLANATION

S. 1101, as amended by the Committee, would amend the National Aquaculture Act of 1980 to authorize appropriations for purposes of carrying out the provisions of the Act. The amounts of the appropriations would be $2 million for the Department of Agriculture, $2 million for the Department of Commerce, and $1 million for the Department of the Interior for each of the fiscal years 1984, 1985, and 1986.

The bill would also make the Secretary of Agriculture the Federal official primarily responsible for certain of the activities carried out under the provisions of the National Aquaculture Act of 1980. In addition, the bill provides that the Secretary of Agriculture, or his designee, would serve as the permanent chairman of the aquaculture coordinating group, identified as the Joint Subcommittee on Aquaculture, established under the National Aquaculture Act of 1980.

COMMITTEE AMENDMENT

The Committee amendment adds 2 new subsections to section 1 of the bill.

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The amendment would make the Secretary of Agriculture the Federal official primarily responsible for certain of the activities carried out under the provisions of the National Aquaculture Act of 1980. In addition, the amendment would provide that the Secretary of Agriculture, or his designee, would serve as the permanent chairman of the aquaculture coordinating group, identified as the Joint Subcommittee on Aquaculture, established under section 6 of the National Aquaculture Act of 1980, and make other conforming changes.

Background

The National Aquaculture Act of 1980 (Public Law 96–362) was enacted for the purpose of encouraging the development of aquaculture in the United States. The authorization for appropriations to carry out that Act expires at the end of fiscal year 1983. The Act requires that a national aquaculture development plan be drawn up by the Secretaries of Agriculture, Commerce, and the Interior. The plan would, among other things, identify aquatic species that have significant culturing potential and recommend the action necessary to develop that potential. This plan must be periodically reviewed by the Secretaries and amended, as necessary, based on that review.

The Secretaries, acting through an interagency coordinating group known as the Joint Subcommittee on Aquaculture (JSA), coordinate and carry out the activities mandated in the Act. These activities include (1) ensuring that all Federal departments and agencies perform any activity affecting aquaculture carry out their functions, to the maximum extent practicable, in a manner consistent with the goal of promoting aquaculture; (2) making contracts and grants for purposes of implementing the aquaculture development plan; (3) studying the capital requirements of the United States aquaculture industry and the State and Federal regulatory constraints on its expansion; and (4) making recommendations as to steps the Federal Government can take to remove unnecessarily burdensome regulatory barriers to the initiation and operation of commercial aquaculture ventures.

The Agriculture and Food Act of 1981 included a provision establishing a program of coordinated research and extension activities for purposes of encouraging the development, management, and production of aquatic food species in accordance with the provisions of the National Aquaculture Act of 1980. Specifically, the Agriculture and Food Act of 1981:

authorized the Secretary of Agriculture to make grants to Federal laboratories and eligible State institutions to fund aquaculture research and extension activities;

authorized the Secretary to assist States in the formulation of aquaculture development plans;

authorized the Secretary to establish up to four aquaculture research, development, and demonstration centers;

required the Secretary to report to Congress and the President, within 1 year after enactment of the Agriculture and Food Act of 1981, and by March 1 of each year thereafter, on the Department's progress in aquaculture research and extension;

required the Secretary to establish a 12-member Aquaculture Advisory Board, expiring on September 30, 1985, to advise the Secretary on aquaculture matters and to make recommendations; and

authorized appropriations of $7.5 million annually through fiscal year 1985 for aquaculture research and extension activities.

While no funds have been appropriated to carry out the provisions of the National Aquaculture Act of 1980, the Secretaries of Agriculture, Commerce, and the Interior have used other statutory authority to become actively involved in fostering aquaculture. As the following table shows, total aquaculture expenditures by the Departments of Agriculture, Commerce and the Interior ranged between $19.1 million and $19.8 million over the four-year period.

FEDERAL EXPENDITURES IN SUPPORT OF AQUACULTURE

Fiscal year	Department of Agriculture	Department of Commerce	Department of the Interior	Total expenditures
1980	$5.9	$8 9	$4.5	$19.3
1981	6.3	8.2	4.6	19.1
1982	7.0	8.3	4.5	19.8
1983	[1] 6.8	[1] 8.0	[1] 4.5	[1] 19.3

[1] Estimated expenditures.

The States have also been supportive of research and extension activities in aquaculture. In fiscal year 1982, the States spent an estimated $4.8 million on aquaculture research and an additional $1.5 million on extension activities relating to aquaculture. Approximately 45 percent of the State research funds was used to match similar funds made available to States by the Secretary of Agriculture. Approximately 65 percent of the State extension project funds was used to match similar funds made available by the Secretary of Agriculture.

Purpose and Need

The aquaculture industry is a dynamic and growing segment of the American economy. It has become a significant source of aquatic products for some species in some regions of the country and has the potential to become a significant source for all aquatic products. A further expansion of aquaculture will result in the creation of jobs, increased farm income stability, wholesome products, and an opportunity to improve our balance of trade.

World-wide aquaculture production has increased significantly over the past 15 years and is now estimated to be as much as 21 billion pounds. The amount of fish and shellfish produced and harvested using culturing methods amounts to 11 percent of the total supply of fish and shellfish harvested in the United States. The 1982 United States trade deficit in fish and shellfish was over $2.2 billion and is projected to increase in the future. This is the only area of U.S. food and agricultural trade in which there is a significant trade deficit.

The aquaculture industry in the United States is composed of approximately 1,100 catfish farms; 250 trout farms; 400 crayfish farms; 25 commercial salmon farms; over 500 oyster culturing firms; 30 firms culturing clams, mussels, and abalone; 15 shrimp producing firms operating in both Lain America and the United States; 20 firms producing freshwater prawns; and a number of individuals and firms that are culturing new species. Aquaculture production in 1983 is expected to be nearly 400 million pounds, three times the level of production in 1975. Production is expected to more than double during the remainder

of the 1980's and total output is expected to approach 2 billion pounds by the end of the century.

Federal efforts to develop aquaculture have centered on programs of research, extension and education, technical assistance, information services, market assessment and development, export promotion, and financing. Many Federal agencies have direct or indirect responsibility for the Federal role in aquaculture, about twenty of which have active programs or activities relating to aquaculture. Numerous State and local agencies exercise some responsibility for aquaculture as well.

Specific authority for the U.S. Department of Agriculture to carry out activities relating to aquaculture was first provided in the Food and Agriculture Act of 1977. Expenditures for aquaculture have grown substantially since that time. In fiscal year 1980, exclusive of financing through the Farmers Home Administration, the U.S. Department of Agriculture provided funding of approximately $5.9 million for aquaculture activities. This funding was increased in fiscal year 1982 to approximately $7.0 million.

It is the belief of the Committee that the Federal Government can accomplish the primary objectives of the National Aquaculture Act of 1980 with a coordinated effort at the Federal level, in concert with State institutions and the private sector. The Act provides that each of the Secretaries of Agriculture, Commerce, and the Interior are equally responsible for developing, implementing, and coordinating Federal aquaculture policy. The absence of centralized Federal effort in aquaculture has hindered the effective implementation of the National Aquaculture Act of 1980 and has raised criticisms of jurisdictional overlap and inadequate Federal coordination. The Committee adopted an amendment that attempts to resolve this criticism by giving the Secretary of Agriculture the lead responsibility for Federal aquaculture activities.

A copy of the National Aquaculture Development Plan, prepared pursuant to the National Aquaculture Act of 1980, has been received by the Committee. The plan outlines various program initiatives designed to support the national policy of encouraging the development of aquaculture in the United States. In addition, the plan contains recommendations for action to reduce Government regulation, to increase support for research and education, and to develop and maintain a well-coordinated effort between the public and private sectors. The Committee believes that the preparation of this plan is a positive step for the aquaculture industry in this country and recognizes the fine work that went into its development.

The developmental and early growth stages of an industry are usually accompanied by costs that are higher than those experienced when the industry is more mature. This underlines the importance of government investment in aquacultural research, since the initial commercial risks are too great to attract the volume of capital necessary to fund the research. With this government catalyst, however, research may be carried out to overcome the initial obstacles to commercial aquaculture. When the initial obstacles are overcome, the level of risk in commercial aquaculture will decline and private capital can be attracted to fund further growth and development of this industry.

The level of funding authorized in the bill represents a decline from past authorizations. The Committee believes that the level of current Federal effort to develop aquaculture will continue, and, accordingly, authorizations for appropriations under the National Aquaculture Act of 1980 can and should be reduced. The Committee further believes that the level of funding authorized in the bill is sufficient to implement the National Aquaculture Development Plan and to encourage the growth of a vigorous, self-sustaining aquaculture industry. Additional progress, however, will also require a commitment to reduce burdensome regulation, enhance private support for research and education, and maintain a well-coordinated partnership between Federal and State agencies, universities, and private industry.

Committee Consideration

S. 1101, a bill to authorize appropriations to carry out the provisions of the National Aquaculture Act of 1980, was sequentially referred to the Committee on June 10, 1983, for the sole purpose of considering the provisions of section 1 relating to aquaculture. The period of referral was to expire on June 30, 1983. On June 29, 1983, the period of referral was extended to July 20, 1983.

The Committee met on July 13 and July 15, 1983, to consider section 1 of S. 1101. At the July 13 meeting, Chairman Helms stated that the Committee needed to complete action on S. 1101 in order to meet the timetable specified in the referral. He further stated that the level of funding authorized in S. 1101 was sufficient to foster a self-sustaining aquaculture industry.

Senator Cochran then offered an amendment to section 1 of S. 1101 to make the Department of Agriculture the agency primarily responsible for the administration of the Federal aquaculture program. Senator Cochran stated that the House of Representatives had taken similar action in a House bill authorizing appropriations for the National Aquaculture Act of 1980 and that he believed the Department of Agriculture should be the lead Federal agency because of its past role in helping ensure support for the development of aquaculture.

Chairman Helms stated that he agreed with Senator Cochran's analysis of the need for the amendment and the Committee agreed to the Cochran amendment without objection.

On July 15, 1983, the Committee met and, by voice vote, ordered S. 1101 reported, as amended.

Section-by-Section Analysis

Section 1 amends section 10 of the National Aquaculture Act of 1980 to authorize the following appropriations:

Fiscal year	Department of Agriculture	Department of Commerce	Department of the Interior
1984	$2,000,000	$2,000,000	$1,000,000
1985	2,000,000	2,000,000	1,000,000
1986	2,000,000	2,000,000	1,000,000

Section 1 makes a number of further amendments to the National Aquaculture Act of 1980 (Act) to make the Secretary of Agriculture

the Federal official primarily responsible for certain of the activities carried out under the provisions of that Act.

Specifically, section 2 of the Act is amended to add a statement that it is the purpose of the Act to promote aquaculture in the United States by establishing the Department of Agriculture as the lead Federal agency for coordinating national aquaculture policy and by designating the Secretary of Agriculture as the permanent chairman of the interagency aquaculture coordinating group.

Section 3 of the Act is amended to add a definition of the term "Secretary". The term "Secretary" is defined to mean the Secretary of Agriculture.

Section 4 of the Act is amended to change references to the Secretaries of Agriculture, Commerce, and the Interior to the Secretary of Agriculture. These changes give the Secretary of Agriculture primary responsibility for developing and revising the National Aquaculture Development Plan. Section 4 is also amended to provide explicitly that the Secretary of Agriculture shall consult with the Secretary of Commerce and the Secretary of the Interior in developing revisions to the National Aquaculture Development Plan. In addition, section 4 is amended to provide that the Secretary of Commerce and the Secretary of the Interior must agree to accept responsibility for carrying out a portion of the National Aquaculture Development Plan before such responsibility can be assigned to either by the Secretary of Agriculture.

Section 5 of the Act is amended to provide that the biennial report to Congress on the status of aquaculture in the United States is to be prepared and submitted by the Secretary of Agriculture. Section 5 is also amended to provide that the Secretary of Agriculture shall consult with the Secretary of Commerce and the Secretary of the Interior before preparing and submitting the biennial report.

Section 6 of the Act is amended to provide that the Secretary of Agriculture, or his designee, will be the permanent chairman of the interagency aquaculture coordinating group, identified as the Joint Subcommittee on Aquaculture, established by the Act.

Administration Views

On July 13, 1983, the Committee received a letter from Secretary of Agriculture John R. Block expressing the Department's views on section 1 of S. 1101. The letter follows:

Department of Agriculture,
Office of the Secretary,
Washington, D.C., July 13, 1983.

Hon. Jesse Helms,
Chairman, Committee on Agriculture,
U.S. Senate, Washington, D.C.

Dear Mr. Chairman: This is in response to your request for a report on the provisions of section 1 of S. 1101, a bill "To authorize appropriations for certain fishery programs", which would extend at reduced levels through FY 1986 the authorizations of appropriations for the National Aquaculture Act of 1980.

The Department opposes enactment of section 1 of S. 1101. We believe that the primary purposes of the section can be accomplished

under existing authorities, including specifically Subtitle L of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended.

Subtitle L authorizes the Secretary to develop and implement a cooperative research and extension program to encourage the development, management, and production of important aquatic food species. This same legislation authorizes an appropriation of $7,500,000 for each fiscal year through FY 85.

While Subtitle L has not been funded, the Department is supportive of aquaculture and has been quite acitve in recent years. For example, in 1981, exclusive of financing programs through the Farmers Home Administration, we estimated our spending at about $6 million. In fiscal year 1982, we funded aquaculture programs and activities at almost $10 million. The contribution to research and development by the Land Grant Colleges and universities also contribute substantially to the overall effort. Because the scope of the current effort will continue, we do not feel enactment of section 1 of S. 1101 is needed.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

JOHN R. BLOCK,
Secretary.

COST ESTIMATE

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following cost estimate which was prepared by the Congressional Budget Office pursuant to section 403 of the Congressional Budget Act of 1974. The Committee notes that the estimate prepared by the Congressional Budget Office includes estimated costs of carrying out not only the National Aquaculture Act of 1980 which is reauthorized by section 1 of the bill but also the Atlantic Tunas Convention Act of 1975 and the Fisheries Loan Fund which are reauthorized by sections 2 and 3 of the bill. The Committee considered only section 1 of the bill relating to the National Aquaculture Act of 1980 and notes that the cost of carrying out that Act should be substantially less than the total estimate by the Congressional Budget Office for the entire bill.

The estimate from the Congressional Budget Office follows:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, D.C., July 19, 1983.

Hon. JESSE A. HELMS,
Chairman, Committee on Agriculture, Nutrition and Forestry, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has prepared the attached cost estimate for S. 1101, a bill to authorize appropriations for certain fishery programs.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

C. G. NUCKOLS
(For Alice M. Rivlin, Director).

CONGRESSIONAL BUDGET OFFICE—COST ESTIMATE

JULY 19, 1983.

1. Bill number: S. 1101.

2. Bill title: A bill to authorize appropriations for certain fishery programs.

3. Bill status: As ordered reported by the Senate Committee on Agriculture, Nutrition and Forestry, July 15, 1983.

4. Bill purpose: S. 1101 extends through fiscal year 1986 the programs authorized by the National Aquaculture Act of 1980 as well as the United States payment to support the Atlantic Tunas Convention Act of 1975. It would also reauthorize the Fisheries Loan Fund in the Department of Commerce (DOC) through 1984.

Fiscal year 1983 appropriations to date for the Fisheries Loan Fund are $10 million; approximately $0.1 million has been provided for the Atlantic Tunas Convention. No appropriations have been made available for the activities authorized by the National Aquaculture Act. Except for $0.1 million for the Atlantic Tunas Convention, the President is not requesting appropriations for the remaining programs in 1984.

5. Estimated cost to the Federal Government:

	Millions
Estimated authorization level:	
Fiscal year:	
1984	$5.1
1985	5.1
1986	5.1
1987	-----
1988	-----
Estimated outlays:	
Fiscal year:	
1984	4.1
1985	5.1
1986	5.1
1987	1.0
1988	-----

In addition, S. 1101 would authorize through 1984 the use of funds received from repayments and interest on outstanding loans issued by the Fisheries Loan Fund. It is estimated that by the end of fiscal year 1983 approximately $1 million from loan repayments and $46 million from fee collections would be available for appropriation in 1984. CBO's baseline estimate for the Fisheries Loan Fund budget authority is $10.5 million for 1984.

The costs of this bill would fall within budget functions 300, 350, and 370.

Basis of Estimate: For purposes of this estimate, it was assumed that the amounts specified in the bill would be appropriated prior to the beginning of each fiscal year. The estimated authorization level of $0.1 million in each of the fiscal years 1984 through 1986 for the Atlantic Tunas Convention reflects the 1983 appropriated level adjusted for inflation. Outlays from each year's appropriation were assumed to be 80 percent the first year and 20 percent the second year.

6. Estimated cost to State and local governments: None.

7. Estimate comparison: None.

8. Previous CBO estimate: On May 4, 1983, CBO prepared a cost estimate for S. 1101, as ordered reported by the Senate Committee on Commerce, Science and Transportation. The two versions of the bill are substantially the same and have identical budget impacts.

On June 1, 1983, and May 12, 1983, CBO prepared cost estimates for H.R. 2676, as ordered reported by the House Committee on Agriculture, and the House Committee on Merchant Marine and Fisheries, respectively. H.R. 2676 authorizes a total of $6 million for aquaculture programs in each of the fiscal years 1984, 1985, and 1986, and contains no provisions concerning the Atlantic Tunas Convention.

9. Estimated prepared by: Howard Conley.

10. Estimate approved by:

C. G. NUCKOLS
(For James L. Blum,
Assistant Director for Budget Analysis).

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact that would be incurred in carrying out the provisions of section 1 of S. 1101, as amended.

NUMBER OF INDIVIDUALS AND BUSINESSES AFFECTED

As reported, by the Committee on Agriculture, Nutrition, and Forestry, section 1 of S. 1101 would have no regulatory impact on individuals or businesses.

ECONOMIC IMPACT

The economic impact of the enactment of section 1 of S. 1101 would not be significant. The bill would reduce authorizations for appropriations for aquaculture research and extension programs from $12 million annually to $2 million annually for each of the Departments of Agriculture and Commerce, and from $5 million annually to $1 million annually for the Department of the Interior.

Reduced authorizations for appropriations to carry out research and extension programs under the National Aquaculture Act of 1980 may lead to some curtailment of Federal activity in this area. However, since the level of Federal activity under this statute has never been very great, this reduction should have little impact on the private sector. Also, any activities in this area that are undertaken by the private sector would be undertaken voluntarily.

PERSONAL PRIVACY ACT

Section 1 of the bill would not have any impact on the personal privacy of the individuals affected.

PAPERWORK REDUCTION

No additional paperwork would be required if section 1 of the bill is enacted.

Changes in Existing Law

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

National Aquaculture Act of 1980

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Aquaculture Act of 1980".

FINDINGS, PURPOSE, AND POLICY

Sec. 2. (a) Findings.—Congress finds the following:

(1) The harvest of certain species of fish and shellfish exceeds levels of optimum sustainable yield, thereby making it more difficult to meet the increasing demand for aquatic food.

(2) To satisfy the domestic market for aquatic food, the United States imports more than 50 per centum of its fish and shellfish, but this dependence on imports adversely affects the national balance of payments and contributes to the uncertainty of supplies.

(3) Although aquaculture currently contributes approximately 10 per centum of world seafood production, less than 3 per centum of current United States seafood production results from aquaculture. Domestic aquacultural production, therefore, has the potential for significant growth.

(4) Aquacultural production of aquatic plants can provide sources of food, industrial materials, pharmaceutical, and energy, and can assist in the control and abatement of pollution.

(5) The rehabilitation and enhancement of fish and shellfish resources are desirable applications of aquacultural technology.

(6) The principal responsibility for the development of aquaculture in the United States must rest with the private sector.

(7) Despite its potential, the development of aquaculture in the United States has been inhibited by many economic, legal, and production factors, such as inadequate credit, diffused legal jurisdiction, the lack of management information, and the lack of reliable supplies of seed stock.

(8) Many areas of the United States are suitable for aquaculture, but are subject to land-use or water-use management policies that do not adequately consider the potential for aquaculture and may inhibit the development of aquaculture.

(b) Purpose.—It is the purpose of this Act to promote aquaculture in the United States by—

(1) declaring a national aquaculture policy;

(2) establishing and implementing a national aquaculture development plan; [and]

(3) establishing the Department of Agriculture as the lead Federal agency with respect to the coordination of national aqua-

culture policy and by designating the Secretary of Agriculture as the permanent chairman of the interagency aquaculture coordinating group established by section 6 of this Act; and

[(3)] *(4)* encouraging aquaculture activities and programs in both the public and private sectors of the economy;

that will result in increased aquacultural production, the coordination of domestic aquaculture efforts, the conservation and enhancement of aquatic resources, the creation of new industries and job opportunities, and other national benefits.

(c) POLICY.—Congress declares that aquaculture has the potential for augmenting existing commercial and recreation fisheries and for producing other renewable resources, thereby assisting the United States in meeting its future food needs and contributing to the solution of world resource problems. It is, therefore, in the national interest, and it is the national policy, to encourage the development of aquaculture in the United States.

DEFINITIONS

SEC. 3. As used in this Act, unless the context otherwise requires—

(1) The term "aquaculture" means the propagation and rearing of aquatic species in controlled or selected environments, including, but not limited to, ocean ranching (except private ocean ranching of Pacific salmon for profit in those States where such ranching is prohibited by law).

(2) The term "aquaculture facility" means any land, structure, or other appurtenance that is used for aquaculture and is located in any State. Such term includes, but is not limited to, any laboratory, hatchery, rearing pond, raceway, pen, incubator, or other equipment used in aquaculture.

(3) The term "aquatic species" means any species of finfish, mollusk, crustacean, or other aquatic invertebrate, amphibian, reptile, or aquatic plant.

(4) The term "coordinating group" means the interagency aquaculture coordinating group established by section 6.

(5) The term "person" means any individual who is a citizen or national of the United States or of any State, any Indian tribe, any institution of higher education, and any corporation, partnership, association or other entity (including, but not limited to, any community development corporation, producer cooperative, or fishermen's cooperative) organized or existing under the laws of any State.

(6) The term "Plan" means the National Aquaculture Development Plan required to be established under section 4.

(7) The term "Secretaries" means the Secretary of Agriculture, the Secretary of Commerce, and the Secretary of the Interior.

(8) The term "State" means any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Virgin Islands of the United States, Guam, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands, or any other territory or possession of the United States.

(9) The term "Secretary" means the Secretary of Agriculture.

NATIONAL AQUACULTURE DEVELOPMENT PLAN

SEC. 4. (a) IN GENERAL.—Within eighteen months after the date of the enactment of this Act, the [Secretaries] *Secretary* shall establish the National Aquaculture Development Plan.

(2) In developing the Plan, and revisions thereto under subsection (d), beginning not later than six months after the date of enactment of this Act, the [Secretaries] *Secretary* shall consult with *the Secretary of Commerce and the Secretary of the Interior*, other appropriate Federal officers, States, regional fishery management councils established under section 302 of the Fishery Conservation and Management Act of 1976 (16 U.S.C. 1852), and representatives of the aquaculture industry. In addition, the [Secretaries] *Secretary* shall give interested persons and organizations an opportunity to comment during the development of the Plan.

(3) If the [Secretaries deem it to be appropriate, they may] *Secretary deems it to be appropriate, the Secretary may* establish, and appoint the members of, an advisory committee to assist in the initial development of the Plan. Individuals appointed to the advisory committee shall be knowledgeable or experienced in the principles and practices of aquaculture. The members of the advisory committee (other than officers or employees of the Federal Government), while away from their homes or regular places of business in the performance of services for the advisory committee, shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703 of title 5 of the United States Code.

(b) CONTENTS OF PLAN.—The Plan shall—

(1) identify aquatic species that the [Secretaries determine] *Secretary determines* have significant potential for culturing on a commercial or other basis;

(2) recommended actions to be taken by the public and private sectors (which may include, but are not limited to, research and development, technical assistance, demonstration, extension education, and training activities) that are necessary to achieve such potential;

(3) address, after taking into account the status of aquaculture regarding the aquatic species concerned—

(A) aquaculture facility design and operation,

(B) water quality management,

(C) use of waste products (including thermal effluents),

(D) nutrition and the development of economical feeds, including natural food sources,

(E) life history, genetics, physiology, pathology, and disease control (including research regarding organisms that may not be harmful to fish and shellfish, but are injurious to humans),

(F) processing and market development,

(G) production management and quality control, and

(H) the development of adequate supplies of seed stock;

(4) include, where appropriate, research programs on the effect of aquaculture on estuarine and other water areas and on the management of such areas for aquaculture;

(5) include, where appropriate, programs to analyze, and formulate proposed resolutions of, the legal or regulatory constraints that may affect aquaculture; and

(6) include such other research and development, technical assistance, demonstration, extension education, and training programs as the [Secretaries deem] *Secretary deems* necessary or appropriate to carry out this Act.

In formulating the Plan, the [Secretaries] *Secretary* shall, to the extent practicable, take into account any significant action that (i) has been, or is proposed to be, undertaken by any other Federal department or agency, any State agency, or any person, and (ii) may affect the implementation of the Plan.

(c) ACTIONS AND IMPLEMENTATION.—The Plan shall specify—

(1) with respect to those actions that the [Secretaries determine] *Secretary determines* should be undertaken, the period of time within which each such action should be completed, in order to implement the Plan; and

(2) with respect to each such action which of the Secretaries, acting individually, jointly, or collectively, has the responsibility for implementing the action.

The specifications of Secretaries responsibilities under paragraph (2) for implementing actions shall be determined on the basis of—

(A) the responsibilities conferred on the respective Secretaries by law or by any executive action having the effect of law (including, but not limited to, Reorganization Plan Numbered 4 of 1970;[and]

(B) the experience, expertise, and other appropriate resources that the department of each such Secretary may have with respect to the action required under the activity concerned [.]*; and*

(C) the concurrence of the Secretaries.

(d) REVISION OF PLAN.—The [Secretaries] *Secretary* shall undertake periodic reviews of the operation and effectiveness of the Plan. If as a result of any such review, or the aquaculture assessment required under subsection (e), the [Secretaries determine] *Secretary determines* that—

(1) any aquatic species not currently identified in the Plan has significant potential for aquaculture;

(2) any action specified in the Plan is not being accomplished on a successful and timely basis; or

(3) any action specified in the Plan should be terminated because its objectives have been achieved or its projected benefits do not warrant further support;

the [Secretaries shall] *Secretary shall* appropriately amend the Plan.

(e) CONTINUING AQUACULTURE ASSESSMENT.—The [Secretaries] *Secretary*, through the coordinating group, shall undertake a continuing assessment of aquaculture in the United States for the purpose of maintaining, on a continuing basis—

(1) a complete profile of the aquacultural industry with respect to the incidence, size, and status of commercial aquacultural enterprises;

(2) the identification of the private and public institutions and organizations involved in acquacultural research, extension, credit, and market development;

(3) the identification of the various aquatic species being cultured and a description of the status of commercial development of each of those species;

(4) to the extent practicable, the identification of aquacultural production regions, species, and markets that have significant potential for development;

(5) a catalog describing all Federal programs and activities that directly or indirectly encourage, support, or assist aquaculture; and

(6) the identification of the economic, physical, legal, institutional, and social constraints that inhibit the development of aquaculture in the United States.

FUNCTIONS AND POWERS OF SECRETARIES

SEC. 5. (a) MANDATORY FUNCTIONS.—In implementing the Plan, the Secretaries shall—

(1) provide advisory, educational, and technical assistance (including training) with respect to aquacultural to interested persons, and in providing such assistance, shall, to the maximum extent practicable, avoid duplication of similar assistance provided by other Federal departments and agencies and by State agencies;

(2) consult and cooperate with interested persons, Federal departments and agencies, State agencies, and regional fishery management councils established under section 302 of the Fishery Conservation and Management Act of 1976 (16 U.S.C. 1852);

(3) encourage the implementation of aquacultural technology in the rehabilitation and enhancement of publicly owned fish and shellfish stocks (including rehabilitation and enhancement by private nonprofit enterprises), and in the development of private commercial aquacultural enterprises; and

(4) prescribe such regulations as may be necessary to carry out the Plan.

(b) DISCRETIONARY FUNCTIONS.—In implementing the Plan, the Secretaries may—

(1) for the purposes of assessing the biological, technical, and economic feasibility of any aquacultural system—

(A) conduct tests of the system, and, if necessary to demonstrate its feasibility, construct, operate, and maintain developmental aquaculture facilities for testing laboratory results, and

(B) conduct such other tests or analyses as may be necessary;

(2) develop methods to enhance seed stocks of aquatic species; and

(3) conduct such other tests or analyses or take such other actions as the Secretaries deem necessary or appropriate.

(c) INFORMATION SERVICES.—(1) In addition to performing such other required functions under this Act, the Secretaries shall—

(A) establish and maintain an information service for the collection, analysis, and dissemination of scientific, technical, legal, and economic information relating to aquaculture;

(B) conduct appropriate surveys, in coordination with other Federal departments and agencies, of public and private aquacultural activities being conducted in the United States for the purpose of acquiring information on acreages, water use, production, culture techniques, and other relevant matters;

(C) arrange with foreign nations for the exchange of information relating to aquaculture and support a translation service;

(D) conduct a continuing study to determine whether existing capture fisheries could be adversely affected by competition from products produced by commercial aquacultural enterprises and include in such study—

(i) an assessment of any adverse effect, by species and by geographical region, on such fisheries, and

(ii) recommended measures to ameliorate any such effect; and

(E) report to Congress on the findings of the study conducted under subparagraph (D) in the biennial status report required under subsection (d).

(2) Any production information submitted to the Secretaries under paragraph (1)(B) shall be confidential and may only be disclosed if required under court order. The Secretaries shall prescribe such procedures as may be necessay to preserve such confidentiality. The Secetaries may release or make public any information in any aggregate or summary form that does not directly or indirectly disclose the identity, business transactions, or trade secrets of any person who submiits such information.

(d) BIENNIAL REPORT.—The [Secretaries.] *Secretary*, through the coordinating group *and in consultation with the Secretary of Commerce and the Secretary of the Interior*, shall prepare on a biennial basis, and submit to Congress, a report on the status of aquaculture in the United States. Each such report shall contain a description and evaluation of the actions undertaken with respect to the Plan during the reporting period, an explanation of any revisions made to the Plan under section 4(d) during the reporting period, and such other comments and recommendations as the [Secretaries deem] *Secretary deems* appropriate. The first report required under this subsection shall be submitted to Congress by September 30, 1981.

COORDINATION OF NATIONAL ACTIVITIES REGARDING AQUACULTURE

SEC. 6. (a) ESTABLISHMENT.—There is established within the Office of Science and Technology Policy an interagency aquaculture coordinating group that shall, subject to [subsection (f)] *subsection (e)*, operate as a Joint Subcommittee on Aquaculture of the Federal Coordinating Council on Science, Engineering, and Technology (hereinafter in this section referred to as the "Federal Council") established by Executive Order 12039, dated February 24, 1978. The coordi-

nating group shall be composed of the following members or their designees:

(1) The Secretary of Agriculture, *who shall be the permanent chairman of the coordinating group.*

(2) The Secretary of Commerce.

(3) The Secretary of the Interior.

(4) The Secretary of Energy.

(5) The Secretary of Health and Human Services.

(6) The Administrator of the Environmental Protection Agency.

(7) The Chief of Engineers.

(8) The Administrator of the Small Business Administration.

(9) The Administrator of the Agency for International Development.

(10) The Chairman of the Tennessee Valley Authority.

(11) The Director of the National Science Foundation.

(12) The Governor of the Farm Credit Administration.

(13) The heads of such other Federal agencies as are deemed appropriate by the Director of the Office of Science and Technology Policy (hereinafter in this section referred to as the "Director"), after consultation with the coordinating group.

(b) PURPOSE AND FUNCTIONS.—The purpose of the coordinating group is to increase the overall effectiveness and productivity of Federal aquaculture research, transfer, and assistance programs. In fulfilling this purpose the coordinating group shall—

(1) review the national needs for aquaculture research, transfer, and assistance;

(2) assess the effectiveness and adequacy of Federal efforts to meet those national needs;

(3) undertake planning, coordination, and communication among Federal agencies engaged in the science, engineering, and technology of aquaculture;

(4) collect, compile, and disseminate information on aquaculture;

(5) encourage joint programs among Federal agencies in areas of mutual interest; and

(6) recommend to the Federal Council specific actions on issues, problems, plans, and programs in aquaculture.

[(c) CHAIRMAN.—Each of the Secretaries or their designees, on such rotating basis as shall be determined by the Director, shall serve as the chairman of the coordinating group. The term of office of the chairman is two years.]

[(d)] (*c*) REPORTS.—The coordinating group shall regularly report to the chairman of the Federal Council on the coordinating group's activities and on recommendations concerning Federal policies and programs related to aquaculture.

[(e)] (*d*) FEDERAL CONSISTENCY.—Each Federal department and agency that has functions or responsibilities with respect to aquaculture or has jurisdiction over any activity that affects, or that may affect, the achievement of the purpose and policy of this Act, shall, in consultation with the coordinating group and to the maximum extent practicable, perform such function, responsibility, or activity in a manner that is consistent with the purpose and policy of this Act.

[(f)] (*e*) FUNCTIONS IF FEDERAL COUNCIL TERMINATED.—If at any time after the date of the enactment of this Act, the functions of the Federal Council are by executive action terminated or transferred to an agency other than the Office of Science and Technology Policy, the coordinating group shall carry out its purpose under the direction of the Director. In that event, the recommendations of the coordinating group referred to in subsection (b)(6) and the reports required under [subsection (d)] *subsection* (*c*) shall be made to the Director.

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AUTHORIZATIONS FOR APPROPRIATIONS

SEC. 10. For purposes of carrying out the provisions of this Act, 16 USC 2809, there are authorized to be appropriated—

(1) to the Department of Agriculture—
  (A) $7,000,000 for fiscal year 1981,
  (B) $10,000,000 for fiscal year 1982, [and]
  (C) $12,000,000 for fiscal year [1983;] *1983, and*
  (*D*) *$2,000,000 for each of the fiscal years 1984, 1985, and 1986;*

(2) to the Department of Commerce—
  (A) $7,000,000 for fiscal year 1981,
  (B) $10,000,000 for fiscal year 1982, [and]
  (C) $12,000,000 for fiscal year [1983; and] *1983, and*
  (*D*) *$2,000,000 for each of the fiscal years 1984, 1985, and 1986; and*

(3) to the Department of the Interior—
  (A) $3,000,000 for fiscal year 1981,
  (B) $4,000,000 for fiscal year 1982, and
  (C) $5,000,000 for fiscal year [1983] *1983, and*
  (*D*) *$1,000,000 for each of the fiscal years 1984, 1985, and 1986.*

Funds authorized by this section shall be in addition to, and not in lieu of, funds authorized by any other Act.

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SECTION 10 OF THE ATLANTIC TUNAS CONVENTION ACT OF 1975

APPROPRIATIONS

SEC. 10. There are authorized to be appropriated out of any monies in the Treasury not otherwise appropriated, for fiscal year 1976, the period beginning July 1, 1976, and ending September 30, 1976, and fiscal years 1977, 1978, 1979, 1980, 1981, 1982, [and 1983] *1983, 1984, and 1985, and 1986* such sums as may be necessary for carrying out the purposes and provisions of this Act, including—

(1) necessary travel expenses of the United States Commissioners, Alternate United States Commissioners, and authorized advisors in accordance with the Federal Travel Regulations and sections 5701, 5702, 5704 through 5708, and 5731 of title 5, United States Code; and

(2) the United States share of the joint expenses of the Commission as provided in article X of the convention.

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SECTION 4 OF THE FISH AND WILDLIFE ACT OF 1956

SEC. 4. (a) * * *

(b) * * *

(c) There is created a fisheries loan fund, which shall be used by the Secretary as a revolving fund to make loans for financing and refinancing under this section. Any funds received by the Secretary on or before [September 30, 1983] *September 30, 1984* in payment of principal or interest on any loans so made shall be deposited in the fund and be available for making additional loans under this section. Any funds received in the fisheries loan fund after [September 30, 1983] *September 30, 1984* and any balance remaining therein at the close of [September 30, 1983] *September 30, 1984* (at which time the fund shall cease to exist), shall be covered into the Treasury as miscellaneous receipts. There is authorized to be appropriated to the fisheries loan fund the sum of $20,000,000 to provide initial capital.

(d) * * *

(e) * * *

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